

ABSTRACT

The invention relates to a method of producing a flat zirconium alloy product with a Kearns factor (cross direction) of between 0.3 and 0.7. The
5 inventive method consists in: producing an ingot containing Nb = 0.5 to 3.5%, Sn = 0 to 1.5%, Fe = 0 to 0.5%, Cr + V = 0 to 0.3%, S = 0 to 100 ppm, O = 0 to 2000 ppm, Si = 0 to 150 ppm, the remainder being zirconium and impurities; shaping the aforementioned ingot; performing one or more hot rolling operations in order to obtain a flat product, whereby the last
10 operation is performed at between $(810 - 20 \times \text{Nb}\%)^{\circ}\text{C}$ and 1100°C and is not followed by any quenching from phase $\alpha + \beta$ or β ; optionally performing an annealing operation at a maximum of 800°C .; and performing one or more cold rolling and annealing operations, said annealing operations being performed at a maximum of 800°C .. The invention also relates to the flat
15 zirconium alloy product thus obtained. The invention further relates to a support grid for fuel rods in a nuclear plant reactor, which is obtained by shaping the flat product.